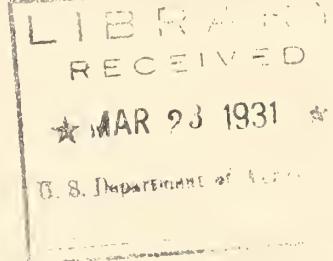


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Excerpt from a radio talk by  
W. W. Vincent, chief, western district,  
Food and Drug Administration, U. S.  
Department of Agriculture, delivered  
over KGO, San Francisco, and associated  
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#### HOW TO READ THE LABEL.

##### Chocolate Products

The Food and Drug Administration annually gives much attention to chocolate products. Practically all cacao beans---from which chocolate is made---imported into the United States are examined. Many lots have been found moldy and have been detained, and the importers required to eliminate the bad beans or else re-export them. Manufactured cocoa and chocolate products, both imported and domestic, get attention. The Federal Notices of Judgment relate many actions that have been taken against adulterated chocolate products. Some were adulterated by the addition of cacao shells. Some were adulterated through cocoanut oil having been substituted for cocoa butter, a valuable ingredient of chocolate. The cocoa butter had been abstracted and the cocoanut oil substituted in its place.

You should know something about cacao beans. They are rather peculiar. The beans grow in a pod embedded in a sweet pink pulp, 29 to 50 beans in each pod. Pods are about the size of a small cucumber and, when ripe, purplish yellow in color. They seem to grow right out of the trunk of the tree, so short is the stem attaching them thereto.

Chocolate liquor---made from grinding the beans---is the base from which all chocolate and cocoa preparations are made. That liquor contains no less than 50% of cocoa fat, or cocoa butter, as you know it. Upon extraction of that butter, which is accomplished through subjecting the liquor to hydraulic pressure, there remains the pressed cake and, upon grinding, this cake becomes the cocoa powder of commerce. Cocoa is known as "Dutch-Process" or "Alkalized Cocoa" if, in its preparation, alkali was added to the product either before roasting, during roasting, or to the chocolate liquor itself. The addition of alkali tends to darken the color of the product and probably neutralizes the free acidity. Such alkali-treated cocoa was formerly sold as "Soluble Cocoa" or "Instant Cocoa", but under actual test it has been shown to be no more soluble than the untreated cocoas.

Now for the Government definitions and standards for cacao products.

Chocolate, known as Plain Chocolate, Bitter Chocolate, Chocolate Liquor, Chocolate Paste, or Bitter Chocolate Coating, is the solid or plastic mass obtained by grinding cacao nibs and contains not less than 50% of cacao

fat---and, on the moisture-and fat-free basis, not more than 8  $\frac{1}{2}$  of total ash ---not more than 4/10th per cent of ash insoluble in hydrochloric acid---and not more than 7% of crude fibre.

Sweet Chocolate, or Sweet Chocolate Coating, is chocolate mixed with sugar---with or without the addition of cacao butter, spices, or other flavoring materials---and contains on the moisture-sugar-and-fat-free basis, no greater percentage of total ash, ash insoluble in hydrochloric acid, or crude fibre, respectively, than is found in moisture-and fat-free chocolate.

Milk Chocolate, or Sweet Milk Chocolate, is the product obtained by grinding chocolate with sugar---with the solids of whole milk or the constituents of milk solids, in proportions normal for whole milk---with or without cacao butter or flavoring material. It contains not less than 12% of milk solids.

Cocoa, or Powdered Cocoa, is chocolate deprived of a portion of its fat and pulverized, and contains, on the moisture-and fat-free basis, no greater percentage of total ash, ash insoluble in hydrochloric acid, or crude fibre, respectively, than is found in moisture-and fat-free chocolate.

"Breakfast Cocoa" is cocoa which contains not less than 22% of cacao fat.

Sweet Cocoa, Sweetened Cocoa, is cocoa mixed with sugar and contains not more than 65 per cent of sugar in the finished product and, on the moisture-sugar-and fat-free basis, no greater percentage of total ash, ash insoluble in hydrochloric acid, or crude fibre, respectively, than is found in moisture-and fat-free chocolate.

Sweet Milk Cocoa is the product obtained by grinding cocoa with sugar ---with the solids of whole milk, or the constituents of milk solids in proportions normal for whole milk---and with or without flavoring material. It contains not less than 12 per cent of milk solids.

Dutch-Process Chocolate, "Alkalized Chocolate", and Dutch-Process Cocoa, "Alkalized Cocoa", are modifications, respectively, of chocolate and cocoa, in that in their manufacture an alkali carbonate, or other suitable alkaline substance, has been employed. In the preparation of these products, not more than three parts by weight of potassium carbonate, or the neutralizing equivalent thereof in other alkaline substance, are added to each 100 parts by weight of cacao nibs. The finished products conform to the standards for chocolate and cocoa, respectively, due allowances being made for the kind and amount of alkaline substance added.

All chocolate products contain the alkaloid, "Theobromine," closely related to the alkaloid found in tea and coffee. They are therefore, in addition to being highly concentrated foods, considered as mildly stimulating.

Remember, now, when buying chocolate preparations, to read the label carefully. "Breakfast Cocoa", is usually richer in fat than "Cocoa", unqualified. In some chocolate products, skim milk is used in lieu of whole milk and where this is true the label will tell you so, or else it will not read "Milk Chocolate". Likewise, if cereal products, such as starch or arrow-

root flour, are incorporated into the chocolate, the label will so inform you, or else the product will be sold under a fanciful name and no mention made of its being a chocolate product. If the confections you purchase appear as chocolate-covered but the label does not bear the word, "Chocolate", upon it, you may assume that cocoanut oil has probably been substituted in part for the cocoa butter than it should contain.

Occasionally, you may observe chocolate products which appear gray in color, having lost their luster or gloss. Such graying does not necessarily mean that the product is old, but rather that it has probably been subjected to somewhat excessive temperature, resulting in the cocoa butter having melted and worked its way to the surface, whereupon, resolidifying it has given the product a somewhat mottled appearance.

